

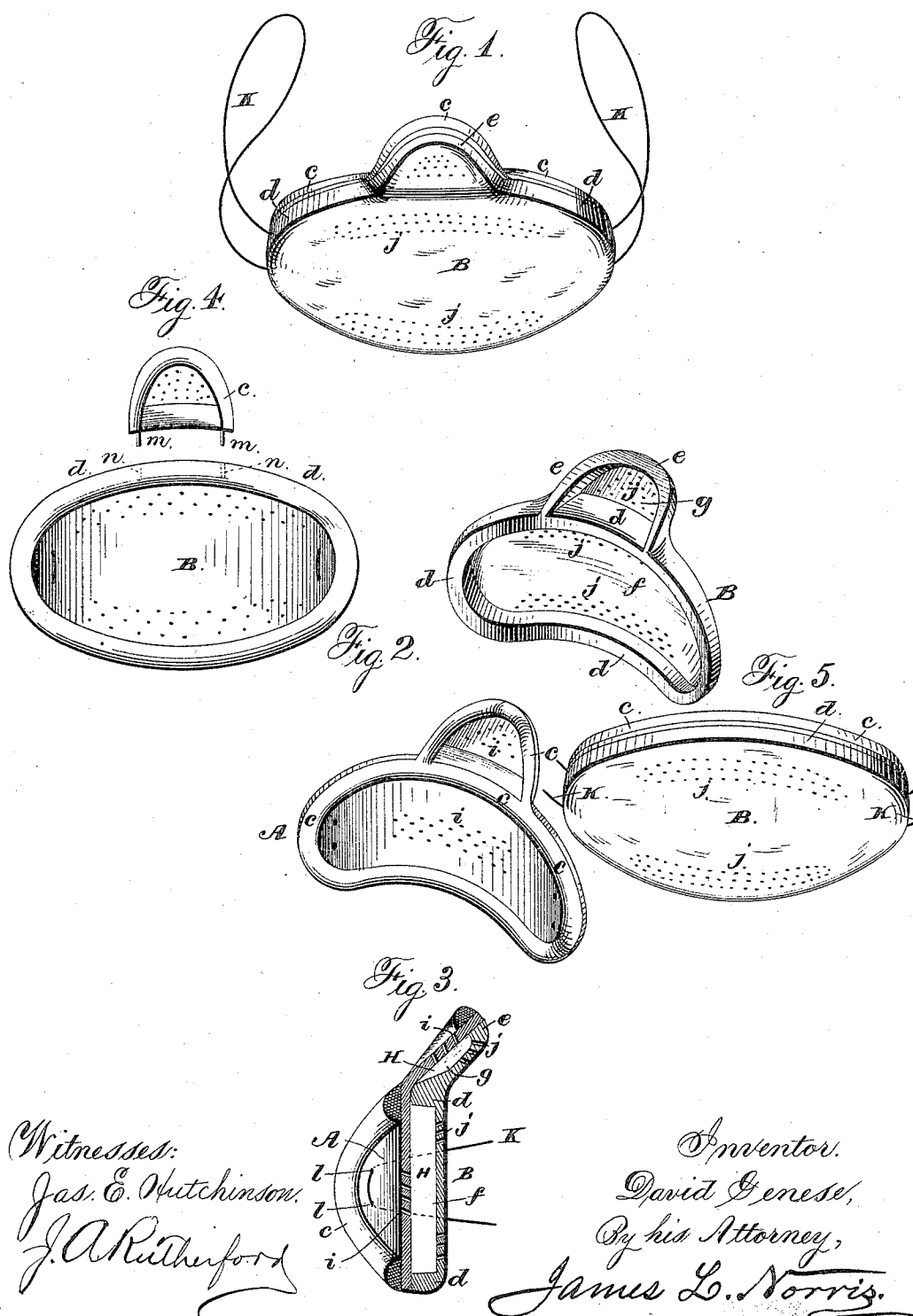
(No Model.)

D. GENESE.

RESPIRATOR.

No. 301,111.

Patented July 1, 1884.



UNITED STATES PATENT OFFICE.

DAVID GENESE, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO
DICKEY, TANSLEY & CO., OF SAME PLACE.

RESPIRATOR.

SPECIFICATION forming part of Letters Patent No. 301,111, dated July 1, 1884.

Application filed June 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, DAVID GENESE, a subject of the Queen of Great Britain, residing at Baltimore, Maryland, have invented new and useful Improvements in Respirators, of which the following is a specification.

My invention relates to that class of respirators or inhalers which are adapted to be secured over the mouth or nostrils, or both; and my improvements consist in such a respirator or inhaler having two perforated plates or sections inclosing a chamber between them, within which may be placed some absorbing material, the inner plate or section having an exterior cushioned rim of soft rubber, and in other details, more particularly hereinafter described.

In the accompanying drawings, Figure 1 represents a perspective view of the respirator or inhaler; Fig. 2, detail perspectives of the two plates or sections. Fig. 3 is a transverse section of the entire inhaler. Fig. 4 is a face view of a modification, and Fig. 5 a perspective view showing the inhaler constructed without a nose portion.

The letter A indicates the lower section or plate, which is to be placed against the mouth and nostrils; and B, the upper or exterior section, which is to be presented to the outside atmosphere. The two sections A and B, I prefer to make of vulcanized rubber; but I do not limit myself to this material, as it is evident that they may be made of many other materials, such as celluloid, metal, &c. The plate A is provided with a cushioned rim, *c*, of soft rubber all around its edge, against the mouth and nose when the inhaler is in use, so as to prevent irritation. This rim is made integral with the plate A. The plate B is constructed with walls or rims *d* and *e*, so as to form chambers *f* and *g* between the plates A and B when they are joined together.

H is the absorbing material in the chambers *f* and *g*.

i i are perforations in the under plate, A, small enough to exclude dust or foreign substances, and *j j* are similar perforations in the upper plate, B. The said perforations are oblique, the perforations *i i* slanting in an opposite direction to the perforations *j j*, so that

the air will not be inhaled directly through the inhaler into the mouth and nostrils, but it will be slightly retarded and obstructed in its course and have time to take up the medicinal properties in the absorbent material H before passing into the mouth and nostrils.

K K are loops of elastic which pass through holes *l* in the two plates, holding them together, and which are also adapted for securing the inhaler to the face.

The inhaler is preferably made of a form adapted to fit closely over the mouth and nostrils; but the portion to fit over the nose may be omitted, if desired.

Instead of making the mouth and nose portions all in one piece, they may be made in two pieces, as in Fig. 4, the nose portion C having pins *m m*, to fit into corresponding holes, *n n*, in the wall or rim *d* of the outer plate, B. With this modified form the mouth portion may be used with or without the nose portion, if desired.

My respirator and inhaler is more particularly adapted for the inhalation of the vapors of drugs prescribed by physicians for the cure of diseases of the throat and lungs, requiring the constant application of a medicine without injuring the tissues or the skin outside of the mouth by direct contact with said drugs or their vapors.

One of the features of the apparatus is that the material is non-absorbent, yet plastic and light in weight, and can be adapted to any desired curve by simply steeping it in hot oil, and it will always retain the position given to it. The material is the same in both sections of the apparatus.

The whole apparatus, with the fibrous filling of the interior, forms an impenetrable barrier for cold or foul air to enter the mouth until warmed, purified, and medicated. It may be used as a protection against inflammation of the throat by any one coming from a hot room.

I prefer to make my apparatus of vulcanite, because it does not absorb the exhalations from the lungs, it is not acted upon by acids and is easily cleaned, and it will stand the action of steam of a temperature of 315° Fahrenheit without injuring the material.

The inhaler may be constructed, as described, without the nose portion, as shown in Fig. 5, and be within the scope of my invention.

I do not broadly claim perforated respirators or inhalers, nor such devices made of vulcanite, nor constructed of two plates with a chamber between, said plates being held together by a securing-cord, for these have been used before.

10 What I claim is—

1. As an improved article of manufacture, an inhaler composed of an inner and outer section, one constructed with an exterior cushioned rim, *e*, of soft rubber, and the other with
15 walls *d* and *e*, resting against the inner section, to create the chambers *f* and *g*, substantially as described.

2. An inhaler and respirator composed of an inner and outer section, one constructed
20 with an exterior cushioned rim, *e*, and the other with a surrounding rim, *d*, to form the chamber *f*, and both sections formed with obliquely-arranged perforations *i* and *j*, substantially as described.

3. An inhaler and respirator composed of 25 an inner and outer section, one constructed with an exterior surrounding rim, *e*, and the other with interior surrounding walls, *d* and *e*, to create chambers *f* and *g*, both sections having oblique perforations *i* and *j*, and holes 30 through which pass loops *k*, for connecting the sections together and securing them upon the mouth of the user, substantially as described.

4. A respirator and inhaler adapted to fit over the mouth, and constructed of three perforated sections, A, B, and C, the section A having a rim of soft rubber, *e*, the section B having walls or rims *d e*, and the section C having pins *m m*, for entering holes in the rim *d*, all substantially as described. 40

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

DAVID GENESE.

Witnesses:

JOS. L. COOMBS,

J. A. RUTHERFORD.